

**Notice of Allowability**

Application No.

10/034,271

Applicant(s)

AMLING ET AL.

Examiner

John P. Leubecker

Art Unit

3739

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to March 19, 2004.
2. ☒ The allowed claim(s) is/are 1-12,15-19,23-32,34,38,39,46-59,65-69 and 73.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 2.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

John P. Leubecker  
Primary Examiner  
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### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Steven Simonis on May 12, 2004.

The application has been amended as follows:

### **IN THE CLAIMS**

Cancel claims **20-22, 35-37, 41-45, 60-64** and **70-72**.

Replace claim 1 with the following:

1. A video imaging system, comprising:
  - a camera head for generating image data;
  - a camera control unit;
  - a light source for generating light mounted within the camera control unit;
  - a cable, for connecting said camera head to said camera control unit, said ~~first~~ cable including a single protective jacket enclosing:
    - at least one channel for transmitting information between said camera head and said camera control unit,
    - a light guide in the cable for transmitting light from the light source to an object, wherein said camera head is receptive of light reflected from the object thereby generating the image data, and
    - an endoscope;
  - wherein the cable engages the camera head so as to direct light longitudinally completely through the camera head and transmits the light to said endoscope through an

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intermediate coupling mounted to said camera head and a cable connecting said intermediate coupling and said endoscope.

Replace claim **17** with the following:

17. The video imaging system according to Claim 16 wherein said cable is detachably connectable to said camera control unit by a connector, and wherein the light output of said light source passes through said camera control unit to the connector.

Replace claim **19** with the following:

19. (previously presented) The video imaging system according to Claim 1 wherein said cable is wired to said camera head.

Replace claim **26** with the following:

26. A video imaging system, comprising:  
a camera head for generating image data;  
a light source mounted within a camera control unit; and  
a cable including a single protective jacket enclosing:  
at least one electrical channel for transmitting the image data and a control signal in the nature of camera operating information from said camera head to the camera control unit,  
a light guide in the cable for transmitting light from the light source to an object, wherein said camera is receptive of light reflected from the object thereby generating the image data,  
an endoscope; and  
wherein the cable longitudinally engages the camera head so as to direct light longitudinally completely through the camera head and transmits the light to said endoscope through an intermediate coupling mounted to said camera head and a cable connecting said intermediate coupling and said endoscope.

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Replace claim **46** with the following:

46. A video imaging system comprising:
- a camera including an imager for receiving photonic energy from an object;
  - a control unit receptive of a control signal from the camera, the control unit generating a command signal for controlling the camera;
  - a cable including at least one channel for bi-directionally transmitting the command and control signals between the camera and the control unit;
  - a light source mounted within the control unit for generating the photonic energy;
  - a light guide in the cable for transmitting the photonic energy to the object, wherein the cable longitudinally engages the camera so as to direct light longitudinally completely through the camera;
  - a jacket enclosing the at least one channel and the light guide;
  - an endoscope; and
- wherein the photonic energy is transmitted to said endoscope through an intermediate coupling mounted to said camera and a cable connecting said intermediate coupling and said endoscope.

Replace claim **56** with the following:

56. A video imaging system comprising:
- a camera for generating image data;
  - a control unit for controlling the camera;
  - a cable including a channel for transmitting information between the camera and the control unit, wherein the information comprises at least a control signal in the nature of camera operating information; and
  - a light guide in the cable for transmitting light from a light source mounted within the control unit to an object, wherein the camera is receptive of light reflected from the object thereby generating the image data;
  - an endoscope; and

wherein the cable longitudinally engages the camera so as to direct light longitudinally completely through the camera and transmits the light to said endoscope through an intermediate coupling mounted to said camera head and a cable connecting said intermediate coupling and said endoscope.

#### REASONS FOR ALLOWANCE

Claims 1, 26, 46 and 56 have been amended in the Preliminary Amendment filed March 19, 2004 and in the amendment appearing above to include that the cable engages the camera head so as to direct light *longitudinally completely through the camera head* and transmits the light to the endoscope through *an intermediate coupling mounted to the camera head and a cable connecting the intermediate coupling and the endoscope*. Although Monroe ('859) discloses an intermediate coupling and cable as claimed, the cable including the light guide does not direct light longitudinally completely through the camera head. Instead, the coupling and light guide extend out the side of the camera head. In addition, certain other prior art references, such as Nishigaki et al. (U.S. Pat. 4,905,082), show a camera head wherein the light guide extends longitudinally completely through the camera head (note for example Figure 29). However, the camera head of Nishigaki et al. connects directly to the endoscope and thus a intermediate coupling and cable is not disclosed. The Examiner takes the position that there is no motivation to combine the teachings of the above mentioned references to form the claimed combination of elements. Therefore, claims 1, 26, 46 and 56 are allowable over the prior art of record. Claims 67 and 73 were amended in the above mentioned Preliminary amendment to recite the feature of a portion of the cable extending through the control unit (guide element spanning the control unit) and coupling the light source with the remaining portion of the cable

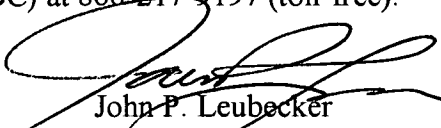
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(the portion that extends between the control unit and the camera head). The prior art of record fails to explicitly disclose or fairly suggest the combination of elements of claims 67 and 73. Therefore, these claims are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Leubecker whose telephone number is (703) 308-0951. The examiner can normally be reached on Monday through Friday, 6:00 AM to 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (703) 308-0994. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John P. Leubecker  
Primary Examiner  
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jpl